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Request For Continued Examination (RCE) Transmittal

Address to:
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P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	09/332,420
Filing Date	06/14/1999
First Named Inventor	David Edgar Hauber
Art Unit	1772
Examiner Name	Alicia Ann Chevalier
Attorney Docket Number	AD-2

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

   a. [ ] Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

      i. [ ] Consider the arguments in the Appeal Brief or Rely Brief previously filed on _____

      ii. [ ] Other _____

   b. [X] Enclosed

      i. [X] Amendment/Reply

      ii. [X] Affidavit(s)/ Declaration(s)

      iii. [ ] Information Disclosure Statement (IDS)

      iv. [ ] Other _____

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2. Miscellaneous

   a. [ ] Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

   b. [ ] Other _____

3. Fees The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

   a. [ ] The Director is hereby authorized to charge the following fees, or credit any overpayments, to Deposit Account No. _____

      i. [X] RCE fee required under 37 CFR 1.17(e)

      ii. [ ] Extension of time fee (37 CFR 1.136 and 1.17)

      iii. [ ] Other _____

   b. [X] Check in the amount of $ 385.00 enclosed

   c. [ ] Payment by credit card (Form PTO-2038 enclosed)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print/Type)	John F. McDevitt	*Registration No. (Attorney/Agent)*	19,141
Signature	J.F. McDevitt	*Date*	October 25, 2003

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Name (Print/Type)	John F. McDevitt		
Signature	J.F. McDevitt	Date	October 25, 2003

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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AD-2(RCE)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
David Edgar Hauber)
Serial No. 09/332,420)
Filed: June 14, 1999)
FOR: REINFORCED THERMOPLASTIC)
PIPE MANUFACTURE)

PRELIMINARY AMENDMENT

Commissioner of Patents
and Trademarks
Alexandria, Virginia 22313-1450

Sir:

Please enter the following claim amendments in the Serial No. 09/332,420 application. A listing of all claims presented in the originally filed application is as follows:

Claim 1 (currently amended) A fiber reinforced pipe member comprising an already formed solid thermoplastic pipe length having an outer wall surface enclosing an inner hollow cavity which includes ~~a plurality~~ multiple applied layers of continuous juxtapositioned reinforcement fibers formed with a solid material composition selected from the group consisting of ceramics, metals, carbon, glass compositions and organic polymers which further includes a thermoplastic resin binder, ~~thermally bonded to the outer wall surface at a predetermined spatial angle with respect thereto for maximum effectiveness in withstanding the applied internal stress when the reinforced pipe member is subsequently put into service~~, each of said multiple applied layers having been applied successively at a predetermined spatial angle with respect thereto which differs from the spatial angle employed for the immediately preceding applied layer, ~~the continuous fiber having been continuously applied in an unbonded condition while maintaining said already formed pipe member in its hollow condition and the subsequent thermal bonding of the applied fibers only adhering the applied fibers to the outer wall surface of the underlying hollow pipe member without utilizing further adherence agents and while not further melting said underlying pipe length to avoid introducing thermally induced residual stress therein.~~ said reinforcement fibers having been continuously wrapped about the outer surface of the unheated hollow pipe length in an unbonded

application recite the melting action as only occurring at the pipe outer surface.

3. I am also aware that the Examiner has rejected the claims in this application on the grounds that the specification fails to specifically recite certain technical features added by amendment to the now rejected claims. I further understand that under United States patent law a patent specification must describe the claimed invention in sufficient detail that one skilled in the same art can reasonably conclude that the inventor had possession of the claimed invention. I find the added limitation in the rejected claims for "the subsequent thermal bonding of applied fibers only adhering the applied fibers to the outer wall surface of the underlying pipe length without utilizing further adherence agents" to be inherently disclosed in the originally filed specification and claims. My opinion pertaining to non-use of adherence agents is based upon finding no mention of these agents in the filed application as well as finding multiple recitations in the filed specification and claims to such specific fiber orientation in the final article. I find the further added limitation in the rejected claims for "while not further melting said underlying pipe length to avoid thermally induced residual stress therein" to similarly be inherently disclosed in the originally filed specification. In support of the latter opinion, one having skill in the general art of thermally processing already existing thermoplastic articles as well as the more specific art of reinforcing hollow thermoplastic articles with thermally bonded fiber already understands the nature of thermoplastic material upon being heated. Said skilled artisan is well aware that residual stress in a thermoplastic material occurs from an excessive heating rate. It would be readily apparent to said skilled artisan that limiting the melting action upon thermoplastic material in the final article being formed to the outer surface of the underlying pipe will result in a lesser residual stress condition.

4. With the above considerations in mind and based upon my review of the originally filed application light of my own extensive experience in the thermoforming of thermoplastic material as well as various articles formed with said material, it is my opinion that all newly added claim

recitals in the reviewed application are adequately supported in the originally filed application through express, implicit or inherent disclosures. In other words, I believe that a skilled person in this art would clearly recognize that the present inventor was in possession of the now claimed invention at the time of filing the original application.

5. Having also reviewed the Gibson et al reference (H1261) upon which the presently amended claims have been further rejected, I am of the further opinion that the method of preparation employed therein involves considerably more heating of the final article than occurs in forming the now claimed final article. It is well recognized that an excessive heating rate of a thermoplastic material causes thermal degradation and residual stress in the final article. Since Gibson et al maintains all thermoplastic material in a thixotropic molten state during the entire winding process it can be expected that such undesirable conditions exist to some degree in the final article. A far lesser heating rate is employed to form the now claimed final product as depicted in the drawings of the pending application. As therein depicted, the fiber reinforcement is conduct with continuous linear movement of the underlying thermoplastic pipe members(s) while limited heating of the outer pipe surface thermally bonds the already applied fiber thereto. It is my opinion, that the Gibson et al reference does not make the now claimed final article to be simply obvious therefrom.

6. The heating requirement in this reference for the final article to be entirely formed on a heated mandrel is viewed to further lead away from the now claimed invention. Heat is applied with said underlying heated mandrel concurrently with heat being supplied from a second source to the external surface of the wound filament. Heating in such dual manner is said to maintain all thermoplastic material in the composite article in a molten state during the forming procedure. In my opinion, a requirement to subject the article being formed to this degree of heating can certainly impart residual thermally induced stress in the resulting article along with a potential for greater thermal degradation of the thermoplastic material in said article.

7. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to